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# MINERAL POLICY OBJECTIVES FOR CANADA

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# **MINERAL POLICY OBJECTIVES FOR CANADA**

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A Statement by Federal and  
Provincial Ministers Responsible  
for Mineral Policy ]

Canada Dept. of Energy, Mines  
and Resources.  
[General publications]  
[G-22 I.

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# Foreword

Ministers responsible for mineral policy in their respective provincial governments and the federal government, including the Territories, concluded in Ottawa on April 13, 1973, a series of meetings which had been held by them and under their authority.

At that meeting, Ministers agreed that a formal mechanism for consultation and co-operation should be developed among the provincial and federal governments to achieve more effective co-ordination in mineral policy development. Such a mechanism is essential for the formulation of mineral policies that are national in scope.

This document, *Mineral Policy Objectives for Canada*, will form the basis for further discussions by the Ministers. It relates to most minerals, but it does not apply to fossil fuels.

Within the context of closer co-operation which is sought at the governmental level, governments must take into account each other's jurisdiction in the translation of objectives into policies. This document is not intended to state or identify policies by which any government would achieve such objectives, nor does it attempt to define or specify the particular role of any one government. However, it is a first phase in the process of intergovernmental co-operation for arriving at a mineral policy for Canada. Nonetheless, governments will choose

from a wide variety of strategies, programs, methods and techniques to achieve their objectives. References in the document to possible strategies are included only by way of example.

Canadians are becoming increasingly aware of the vital role which minerals play in the Canadian economy and in the growth of our national wealth. Suggestions of possible shortages and higher prices, both within Canada and internationally, have focused attention on the value to Canada of our mineral endowment and on the ever increasing need for wise management of our minerals. At the same time, Canadians seek increased social as well as economic benefits from minerals, and also seek that care for a variety of human and environmental values must be emphasized in mineral extraction and utilization.

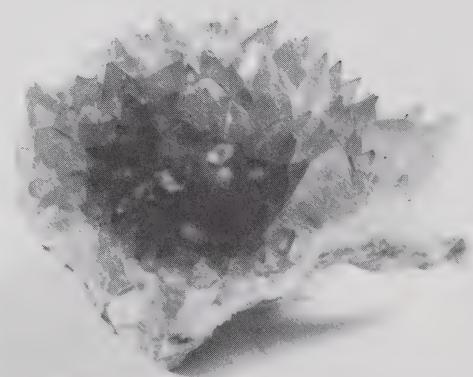
In short, minerals and the way in which they are utilized have a fundamental impact on social and economic development throughout the nation.

Indeed, after meeting the mineral needs of Canadians, those minerals that are surplus to our needs are exported, and account for about one third of total Canadian exports. Production for both domestic needs and export markets accounts directly for some 6 per cent of the nation's Gross National Product. Of even greater significance to Canadians is the overall impact that the mineral industry has on activity throughout the Canadian economy. Thus, a further 12 per cent of our Gross National Product is dependent upon the activities of the mineral industry. This tripling of impact is understandable when one reflects on the goods

and services required to explore for, develop, produce, process, fabricate and transport minerals and mineral-based products within Canada and to other countries.

Looking to the future, there is every reason to believe that the mineral sector can continue to be both internationally competitive and an important means for enhancing national and regional development. However, Ministers emphasize that, despite our abundant mineral endowment, Canada does not have a monopoly on minerals. In fact, we must import some minerals to meet our requirements. Despite some concern that the world's mineral supply may become depleted, the more immediate problems to be faced by Canada are the increasing competition from other resource-producing nations and the efforts of larger industrial nations to secure greater long-term advantages for themselves from resource exporters.

While some differences among governments on mineral policy matters remain, the Ministers agreed that the real significance of their discussions is the beginning of new relationships among governments in the formulation of mineral policy for Canadians.



# Introduction

The provinces in concert with the federal government seek to establish a basis for common understanding on an approach to mineral policy formulation. Toward this end, a proposed goal and set of interrelated objectives for mineral policy are presented within the context of the national policy themes. The objectives are proposed for the nation as a whole without attempting to define the respective roles of the mineral industry, of various levels of government, of individual departments within government or of the general public.





GEOLOGICAL REGIONS AND  
MINERAL AREAS OF CANADA

MINERAL RESOURCES BRANCH

DEPARTMENT OF ENERGY, MINES AND RESOURCES



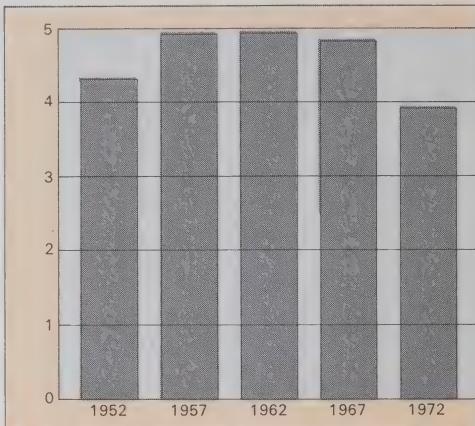
# 1.

## Minerals and the Nation

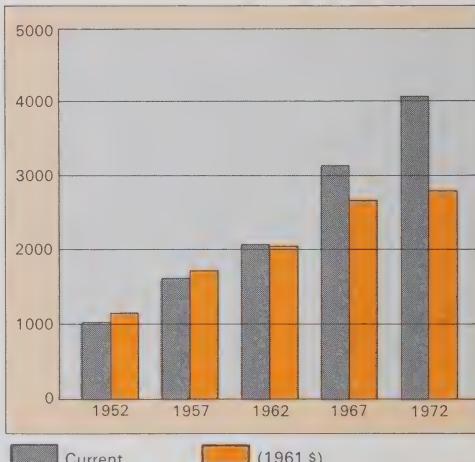
Minerals are a fundamental component of the nation's material and economic base. They are a major staple in the Canadian economy and contribute significantly to Canada's current international position. Indeed, without a continuous supply of minerals to meet growing and changing requirements, the basic character of world society would be much different. Imagine modern society without transportation, communication and power facilities. Consider society's dependence on steel and concrete bridges, aluminum conductor cable, gypsum wallboard, nickel coins, copper wire, lead batteries, automobiles, engines, telephones, rare-metal transistor components, metal containers, glass, asbestos brake-linings, and thousands of other goods. As with other countries, Canada's supply of mineral resources is limited by geography, geology, resource distribution and technology. The opportunity to obtain significant net benefits from our mineral heritage is a complex but rewarding challenge.

As a major component of Canada's economic base, the mineral industry (not including oil, gas or coal) accounts directly for 4 per cent of gross national product (total GNP in 1972 was \$102.7 billion). A further 8 per cent of GNP is dependent on the activities of the mineral industry. Direct employment in the mineral industry totals some 250,000. Although this represents only 3 per cent of the labour force, it does provide the basis for considerably more

Mineral Production\*  
as a percentage of Gross National Product



Canada's Value\* of Mineral Production  
Millions of dollars



\*Not including oil, gas and coal.



employment in the economy. Furthermore, the mineral industry accounts for about one quarter of the nation's export earnings and about 40 per cent of revenue freight traffic in Canada.

Economic activity related to minerals has contributed to expansion and settlement of the frontier, and to interregional linkages among growth centres. Without a viable minerals sector, the nation would be less able to pursue and attain its goals. Spatial development of the nation would not be as well advanced. Indeed, in several provinces and in the federal territories, minerals represent one of the few opportunities for growth. These facts serve to define the magnitude and importance of the sector that comes within the scope of minerals policy.

The interrelated mineral sector activities necessary to meet the nation's material and economic requirements are constrained by the distribution of minerals in the earth's crust. Where favourable conditions exist the process begins with exploration for mineral deposits in the earth's crust followed by production, processing, smelting, refining, transportation and ultimate use for secondary manufacturing. Exports will take place at various stages. The more the industry is domestically integrated and internationally competitive, the more it represents a national asset. Under appropriate government policies, this asset can be expected to provide essential material requirements for Canada. The widely differing economic characteristics of individual components of the minerals sector necessitate a broad and flexible policy framework. For example, potash and sulphur surpluses, and bauxite and manganese (an essential ingredient in steel) deficiencies require different emphasis. Policy should reflect this.

Canada's mineral endowment is extensive and diversified. However, contrary to popular opinion, our mineral resources are not uniquely rich at current international commodity prices. Mining bonanzas are spectacular but few. While an important world producer, Canada does not dominate the world mineral supply scene. Indeed, previously strong individual commodity positions, for example in nickel and asbestos, have suffered some erosion. All mineral deposits are subject to depletion and to competition throughout the world, rather than simply to a domestic cost-price structure.

New discoveries along with international price changes and technological advance alter the economic potential of the nation's mineral endowment. Since change itself is a certainty, what will be the value and extent of the mineral heritage that is left for future Canadians? Dynamic change is taking place in other parts of the world. Within the past two decades the world's mineral resource base has become increasingly diversified and many new mineral-producing countries now compete with Canada in international commodity markets. The diversification of the world's supply base has stemmed largely from the conscious efforts of both resource-consuming nations and international corporations to increase security of supply by diminishing dependence upon any one supply base.

Advances in technology have made economic many of our now profitable mines. Such technological advances occur in small incremental steps and have made possible the expansion of the nation's economic mineral potential. For example, large deposits containing 10 pounds of copper per ton of rock constitute profitable mines today, whereas a minimum grade of 30 pounds per ton of rock was needed 20 years ago. The technical and economic feasibility of using large low-grade deposits has depended on research and innovation to improve productivity.

Global events occur with increasing rapidity. A labour strike in the aluminum industry, a Japanese mining mission to Canada, a Canadian minerals mission to China, a Canadian science mission to West Germany, a mineral evaluation team for aid

to India, potash dumping charges by the United States, a major discovery of uranium in Australia, an embargo on chromium ore from Rhodesia, nationalization of copper mines in Chile, and entry of Britain into the Common Market, for example, all have an important impact on Canada's mineral sector.

The domestic situation is equally dynamic. A new asbestos mine requires a railway, coal movements require additional harbour facilities, a government-controlled firm acquires rights to oil and gas lands in Canada, foreign interests acquire a Canadian-owned mine, copper shortages occur with a rapid escalation of price, a mine closes, government considers extension of the railway system in the Canadian northwest, a national park is created, a new competitive practices bill is introduced, and increased provincial leverage for mineral sector management is proposed through tax reform. These global and domestic events do not wait for Canada to shape and implement a national minerals policy.

The problem, then, for mineral policy formulation is to comprehend present events and anticipate future events, to identify the key issues, and to act effectively. The degree of affluence and life style of the Canadian nation has been and will be profoundly dependent on minerals.

# 2

## The Issue

Canadians view minerals as a major source of wealth and are becoming increasingly conscious of this heritage. Most recognize that mineral development and utilization have contributed substantially to their high level of economic and material wellbeing. But Canadians are aspiring to greater social and economic benefits from their mineral resources. Moreover, awareness and concern are growing for a host of increasingly complex mineral-related problems. Their resolution will affect the nature and extent to which future benefits from minerals will accrue to Canadians. These concerns can be expressed by the general question—



*Can the collective actions of industry and governments produce optimum benefits from minerals for Canadians now and in the future?*

Many problems that anticipate or reflect public concern have already been recognized by government. These problems are key elements in the formulation of a meaningful mineral policy since they pertain to questions respecting:

*conservation of resources  
domestic control  
financial returns from exports  
further processing  
marketing  
pattern and rate of development  
protection of the environment  
social impact  
sources of capital  
specific commodity problems  
taxation and expenditures*

Equally important considerations are: economic growth and balanced development, northern development, regional disparities, science policy, government-individual relations, government-industry relations, foreign trade and external aid, and international relations. All the above policy problems are intertwined throughout a wide spectrum of responsibility levels: municipal, provincial, federal (including territorial) and international.

The recognition of the issue and of the magnitude and character of related problems that require solution in the 1970's is sufficient reason to review mineral policies,



to review the role of the mineral sector\* in the economy, and to seek consensus on the definition of national objectives. Such a consensus should provide a basis for more continuity in common effort on the part of various responsibility centres in the federal and provincial governments, public and private institutions and industrial organizations. Moreover, objectives should provide a basis for consideration of any future strategies which are required to meet the collective needs of Canadians. For example, national strategies for the mineral sector must cope with (a) the strategies of resource-deficient nations, (b) the strategies of resource-surplus nations and (c) the strategies of multinational firms. These forces represent an increasing national problem for Canadian development in the 1970's and beyond, particularly as there is a trend among international organizations to evolve global policies for minerals.

Past policies of successive provincial and federal governments can collectively be described as growth-oriented. Such policies, often pragmatic, fostered an internationally prominent mineral industry which has contributed greatly to the economic and social development of Canada, the development

\*The mineral sector as defined in this document includes the system of activities ranging from resource inventory, exploration, mining, smelting and refining, and fabrication of mineral products, excluding oil, gas and coal, up to and including the primary processed stage, i.e., immediately before manufacturing for final use. Directly related systems include transportation, financing, marketing and technology.

of remote areas, the acceleration of industrial development in the regions, the provision of employment and the generation of revenue. Past problems, considered in their historical perspective, suggest that the success of future governmental policies will be measured against a very high standard of performance. However, the realities of today's everchanging events and those that are yet to confront this nation may require policies directed not only towards growth, but towards broader social and institutional needs.

In this context, a comprehensive and consistent framework for decision making on mineral sector problems by governments is necessary. The framework, if based on an acceptable, workable and flexible mineral policy, would provide governments with an appropriate perspective to assess and resolve issues while pursuing independent action in encouraging specific activities.

Without a consensus on objectives for the mineral sector of the economy, the attainment of full national benefits over the long term may not be realized. The advantages to Canada of decentralization in mineral resource management include flexibility, responsiveness, and awareness of regional needs and problems. However these advantages are impaired by a lack of full recognition of the complexities of broader national issues and problems within a regional context by both federal and provincial governments.

In Canada, the formal mechanisms for co-operation and co-ordination required to meet the mineral management challenges of the future are only now evolving. Consequently, the first need is for national objectives that are sensitive to both federal and provincial aspirations, and which will provide a basis for integrated intergovernmental analysis of social, economic, institutional and behavioural data for action on complex issues. In so doing, governments will be in a better position to assess systematically the nature and extent of benefits that accrue to Canada from minerals.





# 3. National Policy Themes and The Mineral Policy Goal

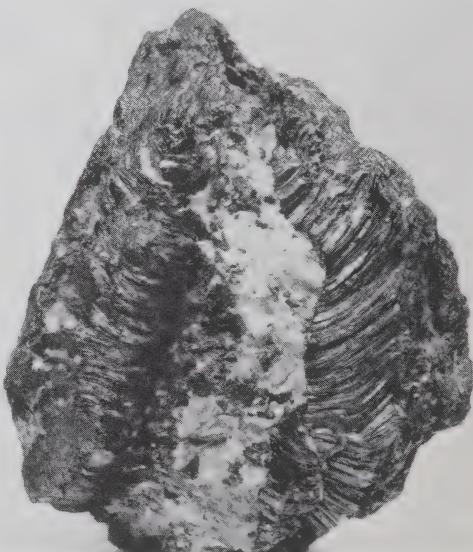
A relationship between Canadian aspirations and minerals can be perceived, in terms of the national policy themes enunciated in the White Paper on Foreign Policy for Canadians. The national policy themes seek to:

- *promote social justice*
- *enhance the quality of life*
- *foster economic growth*
- *safeguard sovereignty and independence*
- *work for peace and security*
- *ensure a harmonious natural environment*

These themes represent broad value statements considered appropriate to the diverse strains in Canadian culture and regions, and fit the prevalent sentiments of Canadians. It follows that they, therefore, provide appropriate guidelines for the development of national policies.

A consideration of these themes in conjunction with minerals suggests that the goal of mineral policy must reflect public aspirations if it is to receive public support. It must also be acceptable to all levels of government and to industry. A mineral policy goal has to link national themes with more explicit mineral policy objectives. The proposed goal is:

*To obtain optimum benefit for Canada from the present and future use of minerals*





# 4. Proposed Mineral Policy Objectives

To support the goal, a series of complementary and interrelated mineral policy objectives are proposed. These provide a basic framework within which all strategies and activities affecting minerals and mineral-based industries can be formulated, implemented and evaluated. The objectives are designed to facilitate achievements in support of the primary goal regardless of the allocation of responsibilities among governments.

As a minimum, federal and provincial governments should be able to conclude whether proposed actions would move Canada closer to or further from the attainment of the national goal. This suggests the need for more integrated economic planning at and between all levels of government, including an effective input from the mineral sector and from the public.

The relationship between national policy themes and mineral policy goal to objectives is shown in the following diagram.

A short description of each objective is given in the following paragraphs to demonstrate their scope, character and interrelationships. Also listed are the general types of strategy elements that might be considered for achieving the objectives.

Although some of the above objectives have common elements which at first glance suggest possible regroupings and amalgamations, it should be noted that each seeks to emphasize a vital issue, the significance of which may be understated by regrouping.

No priority is implied in this document by the order in which objectives are stated. Neither has there been an attempt to weigh the comparative importance of each objective. Moreover, the objectives are not mutually exclusive; hard choices among them and degree of emphasis to be placed on each will be required as Canadian economic and social priorities change through time. However, those proposed are considered to encompass the scope and thrust of a national mineral policy.

# Mineral Policy Goal and Objectives



## Relate mineral development to social needs

Mineral resources contribute to social development through the creation of communities and employment opportunities. However, declining mineral areas cause social problems, particularly in single-enterprise communities. Mineral development strategies can be realigned to counter some dislocations and to provide a basis for improved self-sustained regional economic growth.

Moreover, the contribution of mineral development to the reduction of regional disparities in terms of income, employment and availability of social services can be strengthened. Similarly, mineral development can improve the opportunities open to indigenous peoples. In responding to human needs, the adjustment process may be facilitated along with improved financial, social and locational development of people and communities in general. It is also important to consider the working environment and safety of the mineral industry labour force. Strategy elements could:

*Identify and encourage viable mineral development in areas with insufficient employment opportunities.*

*Place emphasis on areas that have a long-term potential for mineral development and processing.*

*Foresee and alleviate mining community dislocations.*

*Improve communications between individuals and local communities with the levels of government.*

*Give greater weight to the aspirations of indigenous peoples.*

*Improve the social and cultural environment of isolated communities.*

*Promote income stability.*

*Ensure occupational health, safety and comfort.*

## Minimize the adverse effects of mineral development on the environment

Change in the environment has economic, social, ecological, recreational and aesthetic implications. A clean environment is clearly desired. As environmental policies evolve they must be translated into economic costs and technological requirements. Developers are faced with the possibility of increased costs and difficulties in meeting standards while at the same time competing for international markets. Governments face the problem of harmonizing development objectives of mineral policies with environment quality objectives. Strategy elements could:

*Increase technological capability to minimize environmental degradation.*

*Preplan for land-use and reclamation.*

*Maintain or improve water, air and soil quality.*

*Recover, reuse, or recycle waste material.*

*Safeguard against environmental accidents.*

*Improve decision-making by evaluating explicit and implicit costs and benefits to industry and society.*

## Foster a viable mineral sector

Both industry and government have distinctive but interdependent roles to play in how minerals can best contribute to the future economic and social development of the nation. A commercially viable and competitive industrial structure is necessary for sound national development. The business environment in which corporations must compete, both domestically and internationally, may be strongly influenced by government policies and actions.

Few nations are wholly self-sufficient in mineral resources. As one of the major supplying nations in the pattern of world mineral production, trade and consumption, Canada is vitally interested in the terms of international competition, and in identifying changes that may permit greater domestic mineral development and processing. Thus, international competitive forces influence the extent to which the domestic mineral industry can be expected by Canadians to contribute to national themes.

Strategy elements to support a viable mineral industry could:

*Identify the mineral potential of favourable geological regions.*

*Improve the identification and evaluation of potential benefits from production and processing opportunities.*

*Pursue opportunities for marketing minerals and mineral-based products.*

- Improve knowledge of industry's behaviour, pricing policies and profitability.*
- Integrate and rationalize all governmental policies and practices affecting the industry's operational environment.*
- Improve the research, development and innovative process.*
- Promote mineral-based industrial development.*
- Foster industrial productivity.*
- Facilitate the flow of capital and appropriately trained and renumerated labour.*
- Encourage a balanced mineral sector structure which includes a broadly based ownership of the mineral industry supported by the efforts of the individual prospector and junior exploration firms.*
- Encourage understanding and co-operation among governments, industry and labour.*

## Strengthen the contribution of minerals to regional-national development

Development of the mineral sector, along with those industries, services and communities dependent on the mineral sector, has a major influence on the rate and pattern of domestic development, both nationally and regionally. There are several ways to perceive the linkages between minerals and domestic development. For example, the widespread geographic distribution of

mineral resources contributes markedly to a more balanced spatial distribution of economic and social activity.

The distribution of long-term mineral potential also provides a basis for diversifying urbanization and generating new growth centres. At the same time this potential enhances national sovereignty through effective occupation of Canadian territory.

Major mineral-consuming centres provide a basis for industrial development usually characteristic of larger industrial centres. An expanding mineral sector should contribute significantly to the attainment of self-sustaining and interdependent regional economies.

Strategy elements in support of this objective could:

*Encourage new mineral exploration, mine development and mineral-based manufacturing in high-opportunity areas.*

*Undertake development planning in northern regions and territories.*

*Manage frontier expansion and settlement.*

*Provide transportation and strengthen interregional linkages.*

*Facilitate output expansion and product diversification.*

*Extend viable life of mineral operations.*

*Ensure supply and efficient use of investment capital.*

*Develop manpower and managerial skills.*

## **Ensure mineral supply for national needs**

Orderly Canadian economic development is facilitated when mineral consumers have confidence in the long-term availability of mineral supply at competitive prices. While Canada satisfies most of its needs from domestic sources, several key minerals must be imported from throughout the world.

The effects of wide price variations and physical short-term imbalances in supply-demand should be minimized to assure markets, and to prevent waste or premature abandonment of mineral deposits. Strategy elements could:

*Direct and guide political and economic relations with key foreign countries.*

*Encourage prospecting, exploration, development and processing operations for key minerals.*

*Identify opportunities suggested by technological changes to influence planning and product development by consuming sectors.*

*Develop and maintain comprehensive data on economic mineral reserves and resource potential, both domestic and foreign.*

*Undertake research on key submarginal deposits.*

*Improve production and consumption efficiency, encourage technological advance, and encourage the development of substitute materials when desirable.*

*Recover key materials from domestic and industrial waste.*

*Ensure domestic requirements at reasonable and stable prices consistent with maximum returns from orderly export marketing.*

*Consider limitations on the rapid exploitation and export of limited supply commodities for which Canada may have great future need.*

## **Increase the return to Canadians from exportable mineral surpluses**

A basic determinant of national development is the character and magnitude of the net returns to Canada from the export of surplus minerals and metals. The large proportion of mineral production exported by foreign controlled firms and the policy of many industrial nations to attain maximum benefits for themselves from the Canadian resource base suggest that some potential benefits may not accrue to the nation without continual vigilance. Strategy elements to support this objective could:

*Establish minimum acceptable standards for contractual arrangements that would provide equitable payment for mineral product exports.*

*Encourage highest possible efficiency and returns associated with all technological research and development in Canada.*

*Promote further processing of minerals and mineral products.*

*Strengthen federal-provincial co-operation in foreign market development, for example, for*

*commodities*

*technology and machinery*

*service industries*

*Canadian capital, equity and institutional risk*

*Promote the development of secondary industries based on utilization of mineral products.*

*Support international arrangements designed to reduce barriers to trade, and to overcome supply-demand imbalances.*

*Expand and diversify Canadian access to foreign mineral markets, both by area and by commodity.*

*Encourage co-operation with other mineral producing countries.*

## **Realize opportunities for further mineral processing**

Canadian economic development has relied heavily upon the stimulus provided by resource exports. The policy of mineral-consuming nations has been, and will likely continue to be, to minimize Canadian exports of more highly processed materials and fabricated products. Thus, further processing as a policy objective becomes particularly relevant as much of our export trade is in the form of crude minerals or partially processed mineral materials.

Increasing demands for Canadian minerals in world markets would seem to provide future opportunities for further processing despite existing barriers to trade which our processed mineral products now face. The development of a more diversified domestic mineral industry both in terms of forward integration and commodity mix can provide a stronger base for the support and continued development of other sectors of the national economy.

Attendant on this potential for economic diversification through further-processed mineral exports is the realization that Canada imports significant amounts of partially processed and fully fabricated products. These are composed of mineral materials of which Canada has substantial resources.

Strategy elements could:

*Encourage research aimed at expanding uses for minerals and metals.*

*Induce the use of investment capital by mining companies to integrate forward.*

*Promote and encourage the replacement of imports including equipment, supplies and services.*

*Identify, evaluate and promote further processing opportunities for minerals and mineral products.*

*Undertake and encourage research aimed at developing more efficient methods of winning materials from minerals.*

## Improve mineral conservation and use

Mineral deposits are nonrenewable. The rate and manner of mineral development and utilization of mineral products, including scrap, are important factors affecting the cost and physical availability of mineral materials. Wise planning for development, use and reuse with a view to future needs is a basic consideration. Strategy elements could:

*Promote optimum recovery from mines, processing and consuming plants.*

*Reduce the amount of mineral materials used in the production of goods but retain product serviceability.*

*Facilitate the substitution of abundant for scarce mineral materials.*

*Increase the recovery and recycling of scrap and waste materials.*

## Harmonize multiple resource development

Despite Canada's size, the intensity of land-use conflicts is increasing. Parks, water basin development and urban expansion, for example, compete with mineral development. If unilateral decisions are made concerning land-use before economic mineral potential is known, the public may be precluded from benefits that would accrue from comprehensive multiple and sequential resource development and planning. Strategy elements could:

*Undertake co-operative research and joint planning to harmonize development of minerals with development plans for:*

- forestry and agriculture*
- parks, wildlife and wilderness areas*
- recreation areas*
- water basin utilization*
- urban expansion*

*Evaluate all multiple and sequential land-use regulations and procedures.*

*Evaluate economic potential of minerals in areas of current and potential interest to other developers by early geoscience, mineral technology and mineral economic research.*

*Improve mechanisms for individual and local community participation in land-use decisions and in adequate resolution of conflicts.*

## Contribute to orderly world mineral development and marketing

The sharing of Canadian skills and experience in the minerals field, together with capital assistance, represent a worthwhile basis for extending aid to developing countries. Of equal potential importance are Canada's contributions to international mineral development planning and to the necessary exchange of information for this purpose. Serious misallocations of resources can result from encouraging nonviable projects that unwittingly contribute to dislocations in international markets. Moreover, otherwise viable projects, if not properly phased and evaluated in light of international developments, can also waste capital and resources. Consequently, the development of international consultative mechanisms that operate to minimize the undesirable effects of supply-demand imbalances may contribute to orderly development in both Canada and abroad.

Strategy elements could:

*Provide for and evaluate foreign aid in the minerals field to developing countries, recognizing their sovereignty and wishes.*

*Maintain and contribute to international co-operation and exchanges.*

*Participate in appropriate international mineral supply arrangements.*

*Participate in appropriate international commodity agreements.*

*Contribute to establishment of international specifications and standards for products of the mineral sector.*

## Ensure national self-determination in mineral development

The nation seeks to retain its ability to follow desirable courses of action that reflect legal, political and economic sovereignty in managing domestic affairs. External policies are necessarily an extension of domestic policies and therefore they closely relate to the mineral sector and regional needs. Such policies must accommodate and interrelate with both federal and provincial policies and priorities to encourage desirable effects and counter any potentially undesirable effects produced by: (a) the mineral procurement strategies of industrial nations, (b) the development strategies of resource-exporting nations and (c) the multinational firm and international labour unions. Strategy elements could:

*Promote and encourage increased Canadian ownership, control and participation with emphasis on the development of Canadian firms.*

*Promote exploration and development at the frontier and in less developed regions.*

*Diversify and strengthen overseas relationships and international co-operation.*

*Undertake comprehensive surveillance of foreign government and international corporate policies, behaviour and practices:*

- pricing, marketing tactics and profits
- amount, type, and source of capital
- research, development and innovation
- taxation, tariffs, incentives, and procedural requirements
- purchasing and employment policies

*Maintain security of key national data and intelligence.*

## **Strengthen the basis of national decision-making**

The maintenance of an adequate data base and the flow of information between public and private organizations are vital activities. The management process needed to accomplish mineral policy objectives would be ineffective without a basis for intelligent consideration of issues. Gaps in awareness of problems among various responsibility centres must be minimized to ensure that decisions are soundly based.

The communication of concepts and practices requires effective organization to reflect the constellation of activities that affect the mineral sector. Indeed, the contribution of minerals through time to national development has been significantly dependent on the collective ability of organizations to develop, gather, process, exchange, analyze and interpret information. The systematic assessment and study of relevant factors and of possible policy alternatives requires input from many knowledgeable groups.

Planning, innovation and co-ordination of mineral sector activities are dynamic processes. The need to carry out these activities under conditions of uncertainty and risk will require stronger consultative linkages to aid the respective governmental and corporate decision-making systems in the future. Strategy elements could:

*Develop an adequate government-industry-public information base:*

*Improve the inventory of physical, technical and economic characteristics of earth resources available to Canada.*

*Interpret industrial and commercial intelligence.*

*Provide forecasts of political, social, economic and environmental factors likely to affect the mineral sector.*

*Review and identify future domestic and world mineral supply-demand-price situations.*

*Assess constraints on Canadian action including those of a jurisdictional, regulatory and administrative character.*

*Improve the national decision-making process:*

*Improve efficiency in information flows.*

*Disseminate relevant data among responsibility centres.*

*Provide for consultative linkages within Canada and abroad.*

*Monitor and provide evaluation on mineral problems and strategies.*

*Provide for public information, education and participation.*

# 5.

## Priorities and Choices

The mineral policy objectives proposed here provide a basis for further development of a policy decision-making framework. Choices, however, are bound to arise. It is recognized that the proposed mineral policy objectives are not mutually exclusive; choices and degrees of emphasis among them will be required.

To illustrate the range of choices, it is useful to consider them arbitrarily from three viewpoints: economic, social and political. The three are interrelated, and all can arise both between and within individual objectives. These three categories are best illustrated by example.



### Economic

Economic choices arise between different components and participants in the economy, including sectors and regions, and between national and international aspirations. Examples are:

- (i) *Higher employment and more rapid economic growth now based on exports of minimally processed minerals must be weighed against longer-term and possibly more viable economic development through industrial diversification, exports of processed minerals, and resource conservation.*
- (ii) *Policies aimed at balanced economic growth may require selective emphasis of some sectors relative to others to achieve the fullest and most productive use of labour, capital and natural resources.*
- (iii) *Rapid development of specific domestic natural resources for export in competition with foreign suppliers may lead to oversupply in world markets and an unsatisfactory return from mineral exports.*



# 5.



## Social

Social choices are often associated with undesirable effects of economic activity which society at large knowingly or unwittingly bears, but which must be recognized as part of the costs of that activity. Thus, conflict can occur between social and economic objectives. Examples involving social choice which may require modification of the mineral sector are:

- (i) *Environmental impact of an industrial operation can give rise to unacceptable ecological imbalance and public costs that should be corrected and borne more fully by the operation. For example, effluents from an industrial plant may damage the fishing industry but losses of the latter are not borne by the polluting operation. Environmental standards and regulations are designed to transfer the cost of preventing such damage to operations causing degradation. This can increase production costs to the point where particular economic activities are no longer competitive, leading to lower overall economic growth, regional stagnation and unemployment.*
- (ii) *Mine development and production eventually lead to depletion of individual orebodies. Consequent mine closure results in local unemployment, social disruption, and depreciation of community assets.*



# 5.



## Political

Political choices involve the varying responsibilities for resource management among and between both levels of government. These choices often require compromise among different responsibility centres, both within the country and with other countries. Examples are:

- (i) Federal, territorial and provincial policies and programs can constrain one another because of differences in social and economic priorities, and because of conflicts respecting constitutional authority.*
- (ii) International and multinational corporations provide a vehicle for economic development and employment, but excessive reliance on them can lead to widespread foreign ownership and control, and vulnerability of the national economy to extraterritorial actions of foreign governments. This may reduce the freedom of the nation and its citizens to pursue their own choice of social, economic and political objectives.*



# Concluding Statement

## 6.

With the release of this document by the federal and provincial governments in Canada, a first step has been made towards the formulation and implementation of comprehensive mineral policies for Canada.

Ministers responsible for the document would like to emphasize to Canadians that the nation's mineral endowment can support an expanding level of output and thereby continue to contribute substantially to the economic and material wellbeing of future generations.

However, Ministers would emphasize that, despite our abundant mineral endowment, Canada does not have a monopoly on minerals. Indeed, a major challenge will be to maintain an internationally competitive sector in the face of increasing competition from other resource-producing nations and the efforts of larger industrial nations to secure greater long-term advantage from resource exporters.

Ministers wish to explore the question of how mineral development for both domestic needs and exports can best be undertaken so as to make an optimum long-term contribution to development throughout Canada. Mineral development and usage must be

sufficiently sensitive, for example, to long-term economic development needs, undesirable environmental impacts, the viability of communities dependent on mineral production and fabrication, and many other issues discussed throughout the text. Not the least of ministerial concerns is the need for a more precise delineation of the long-term economic potential of our mineral endowment and the ways in which it can be utilized.

During their deliberations, Ministers emphasized the high degree of interdependency among levels of governments in Canada. Each can affect the opportunities and problems; optimum solutions therefore require improved consultation. This is considered particularly important since the full range of the mineral system is highly linked to foreign markets and international institutions.

The mineral policy objectives proposed for Canada are considered by Ministers to reflect the needs and aspirations of the Canadian people. As a further step, Ministers have agreed to develop a strengthened and more formal mechanism for co-ordination and common policy development. Such a mechanism is essential for the formulation of mineral policies which are national in scope.



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